Draft CHESAPEAKE BAY TMDL

Restoring Maryland's waterways and Chesapeake Bay

Public Meeting
Annapolis, Maryland
October 13, 2010

www.epa.gov/chesapeakebaytmdl

Today's Agenda

- **EPA presents draft TMDL**
  - Rich Batiuk, Chesapeake Bay Program Associate Director for Science
  - Bob Koroncai, Chesapeake Bay TMDL Manager
- **Maryland presents WIP**
- **Question & Answer**
- **More information**
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First…The Bottom Line

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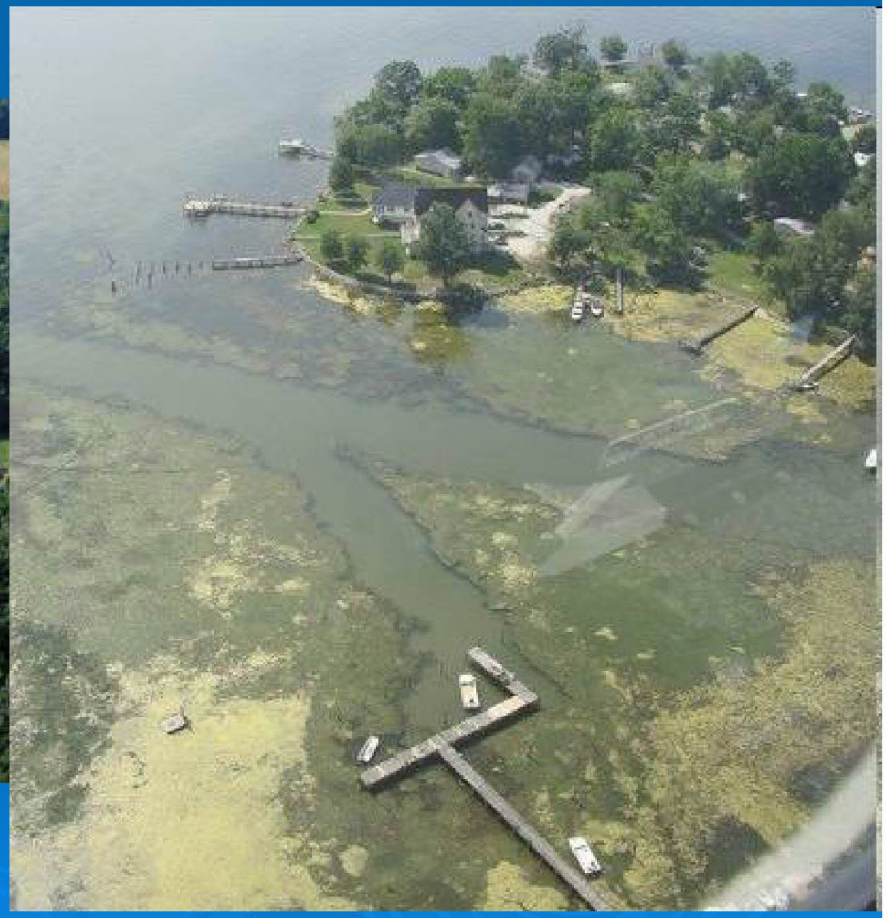
Lack of progress triggered TMDL



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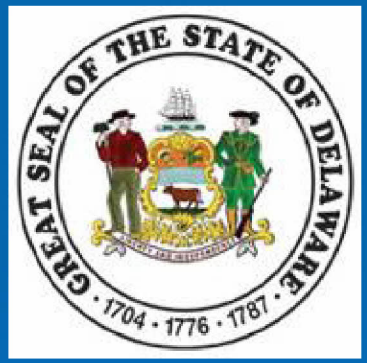
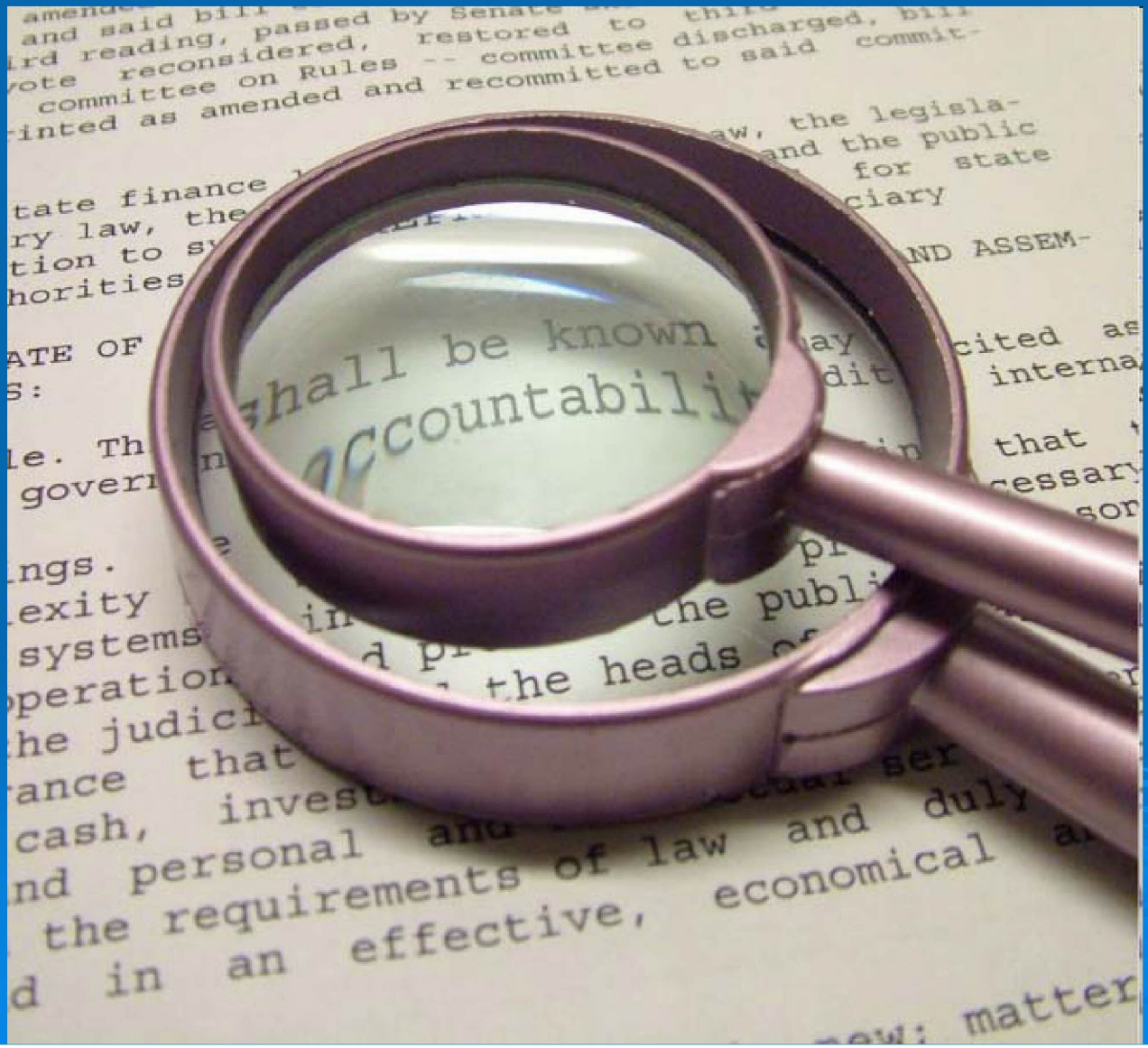
TMDL is a "pollution diet"

For your streams, creeks and rivers

Blend of state actions and federal measures



Accountability for results



Task not easy but essential

What is a TMDL?

And Why Does it Matter?

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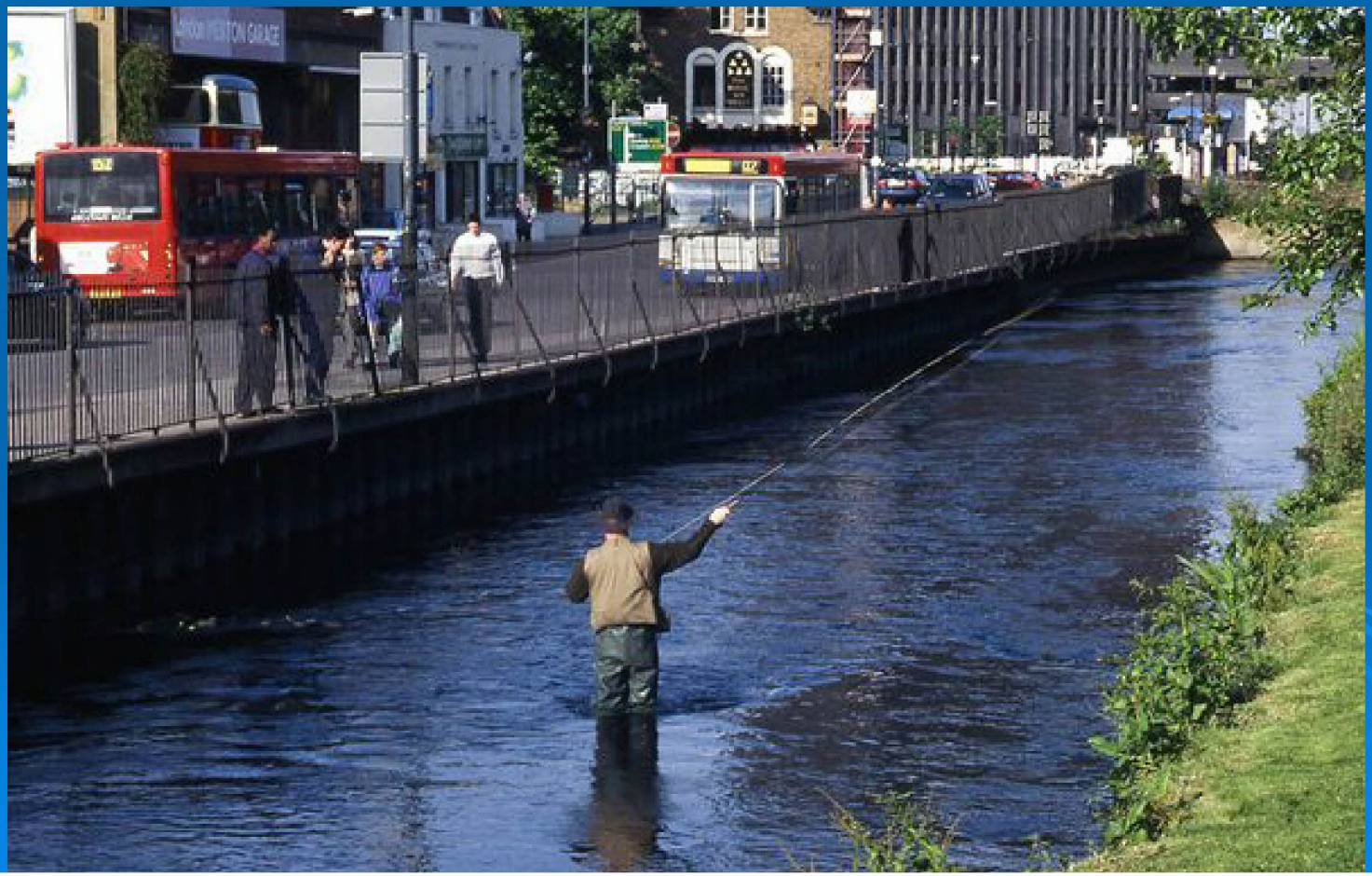
Clean Water Act requires TMDL for waters that don't meet state standards

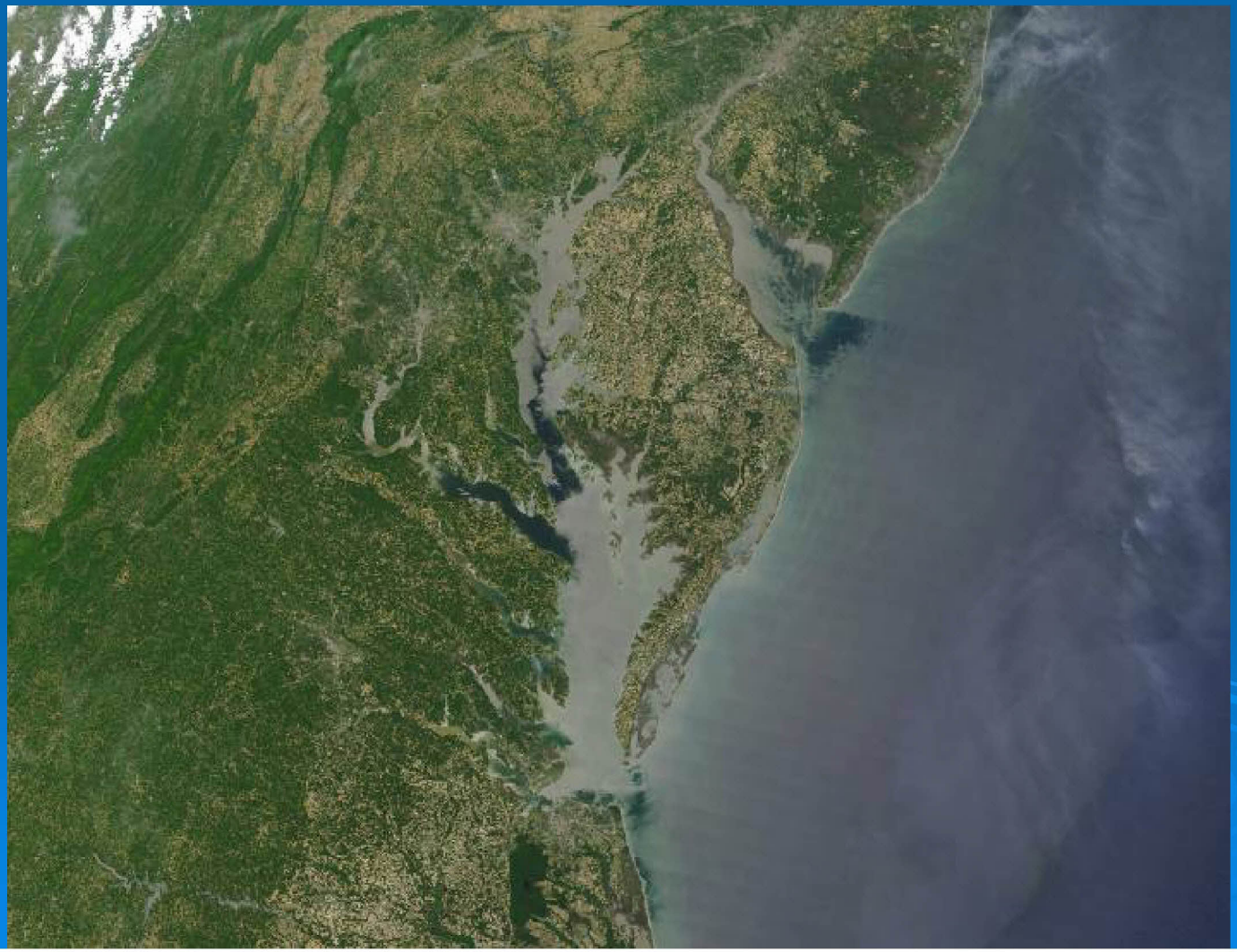
TMDL = Total Maximum Daily Load

Defines amount of pollution a water body can handle and be healthy



Bay and tributaries are polluted by nitrogen, phosphorus, sediment

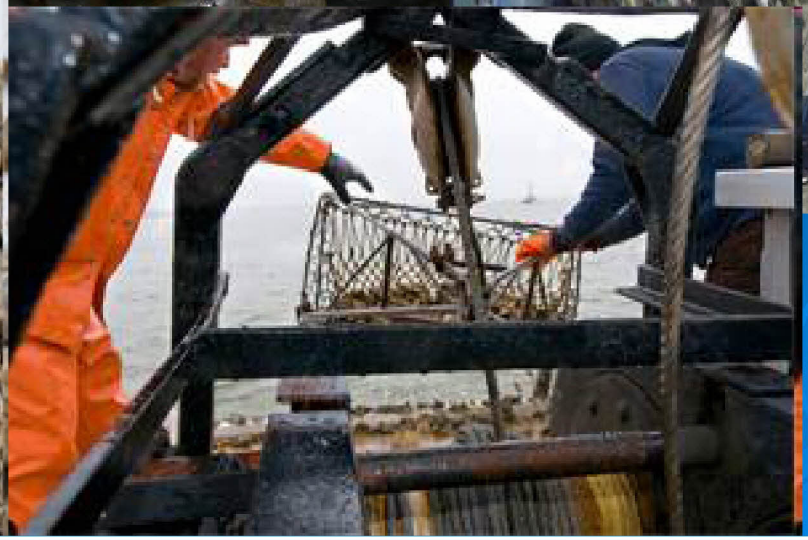
Rivers, streams, & creeks contribute to Bay, so included in TMDL



Legal obligation to get it done

Part of strategy to meet a Presidential Executive Order

Clean water matters to your community



Clean water matters to your community

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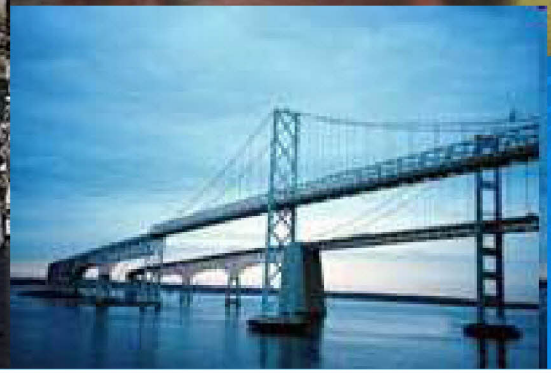

The Economic Impact

- Bay is valued at more than $1 trillion
  - based on factors including fishing, tourism, property values, recreation, local businesses, shipping
- Between 1993 and 2009 the number of Bay waterman declined from 14,000 to 1,500.
- The decline of the Bay oyster over the last 30 years has meant a loss of more than $4 billion for Maryland and Virginia.

The Economic Impact

- Clean water can increase the value of single-family homes up to 4,000 feet from the water's edge by up to 25 percent.
- Philadelphia estimates that installation of green stormwater infrastructure will raise property values 2 to 5 percent, generating $390 million over the next 40 years.
- For every $1 spent on drinking water protection, an average of $27 is saved in water treatment costs.

Setting the Pollution Diet

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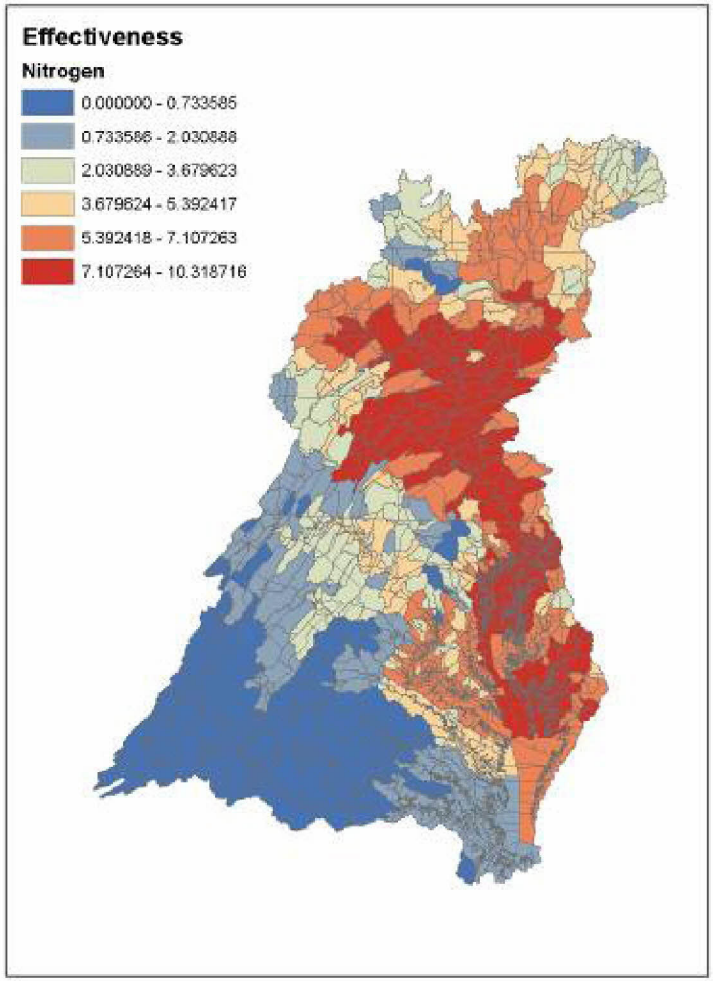
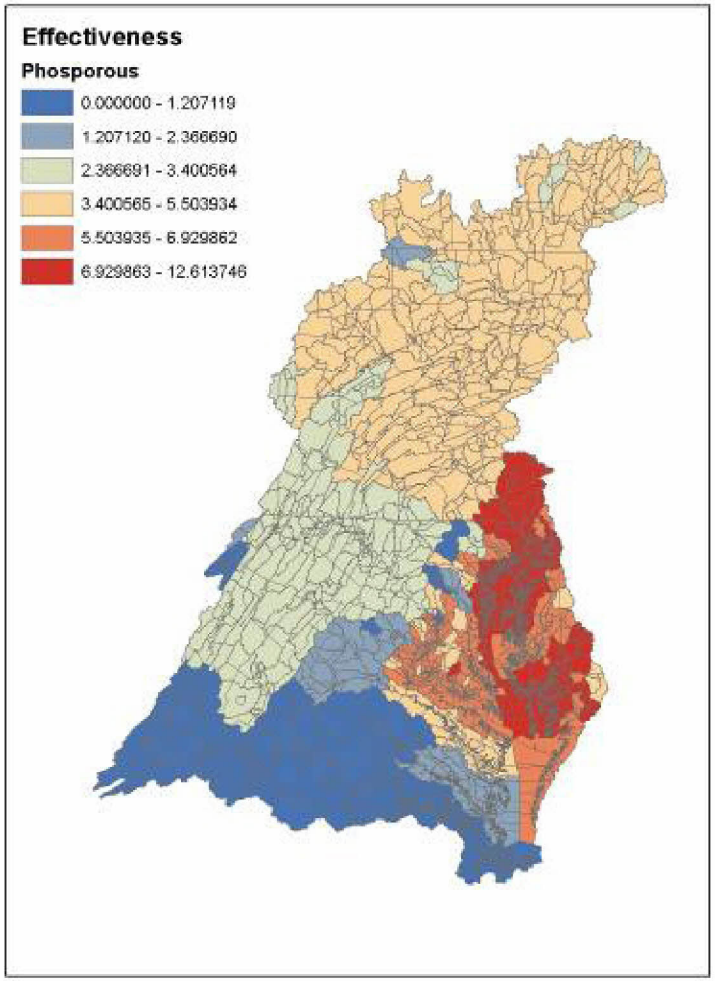
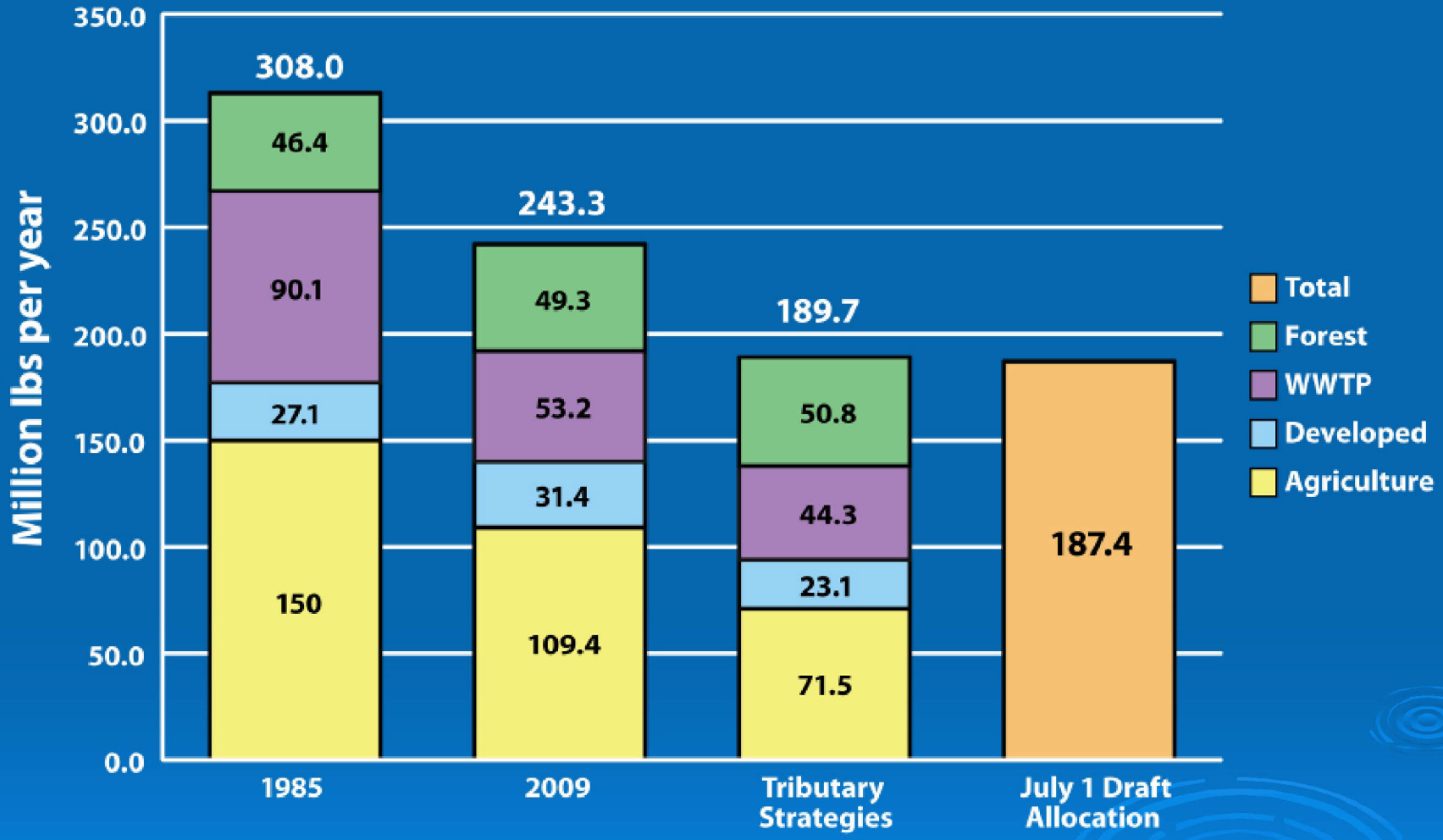
Impact of Pollution





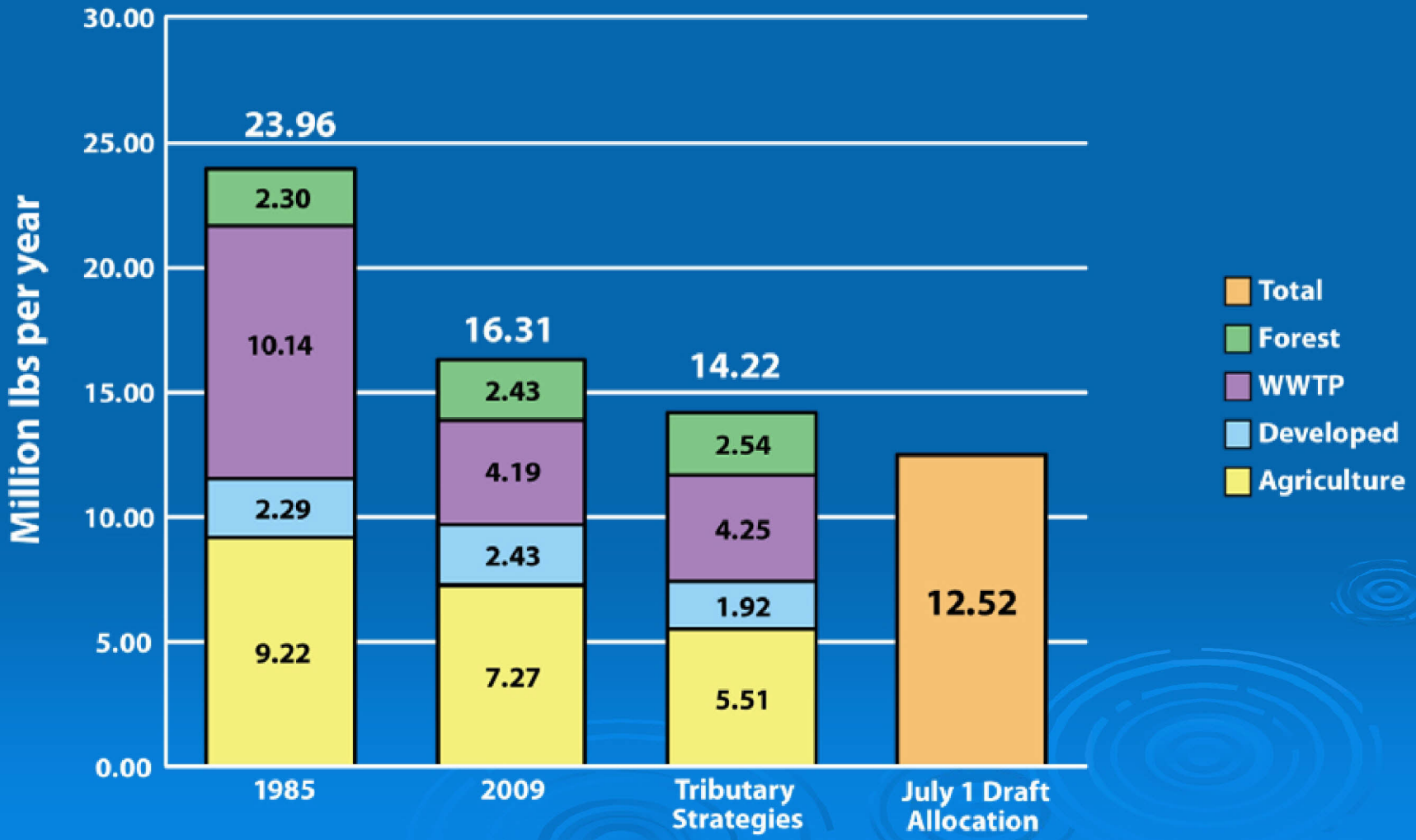
Nitrogen Loads by Sector and Scenario—CBP Watershed Model P5.3



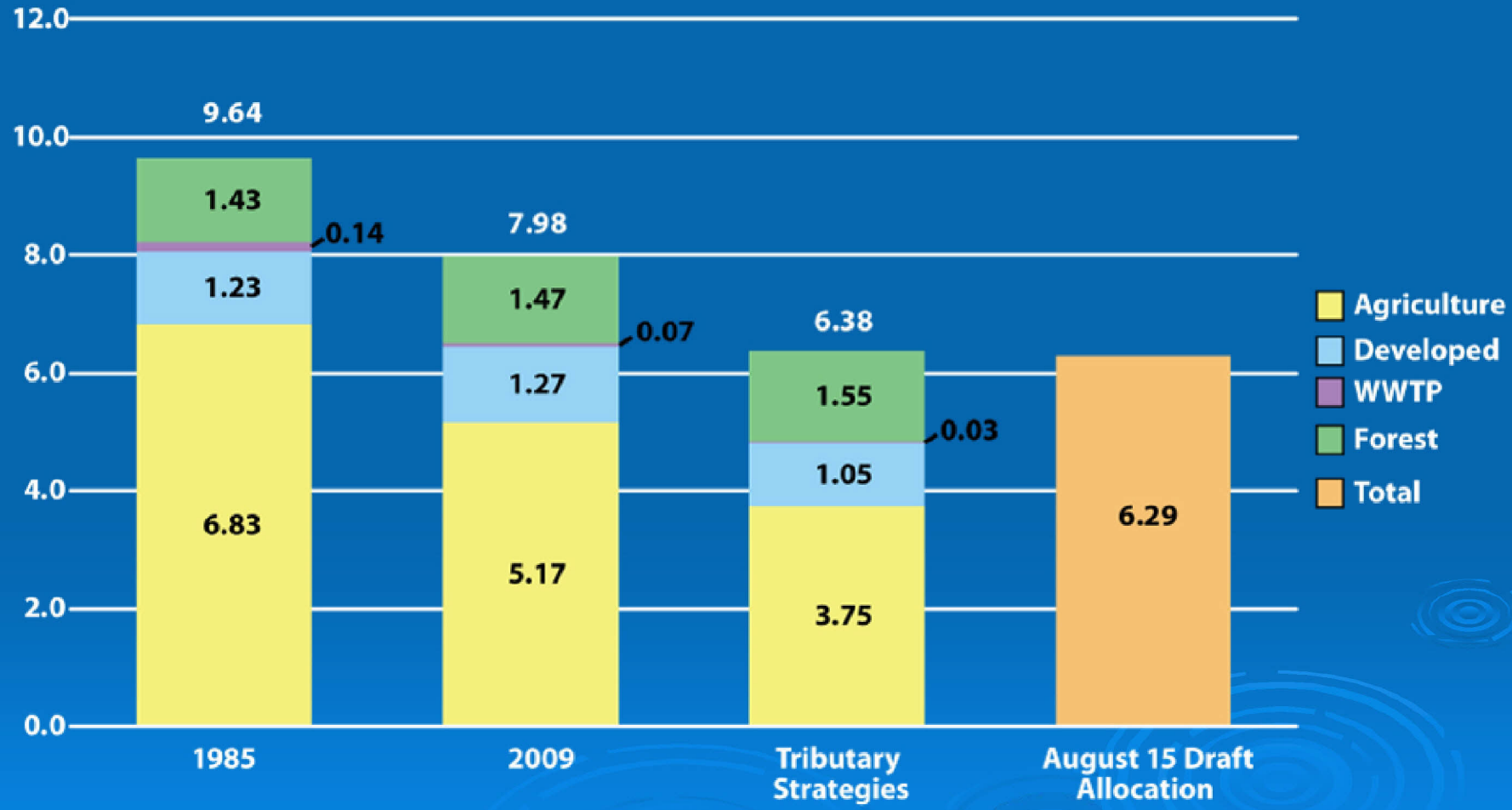
Draft allocation for atmospheric deposition is 15.7 million pounds, which will be achieved by federal air regulations through 2020.

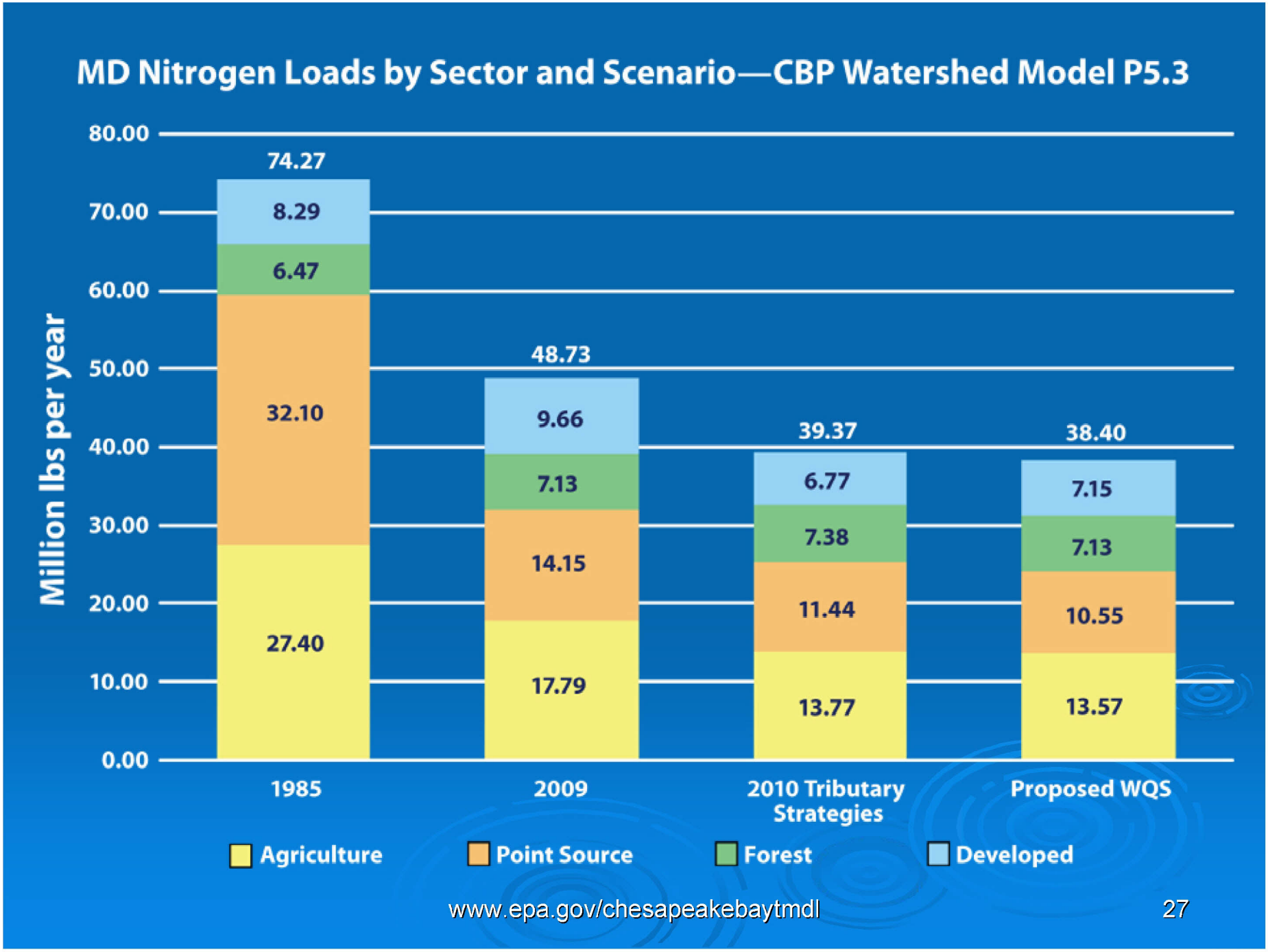
Setting the Diet

Phosphorus Loads by Sector and Scenario—CBP Watershed Model P5.3

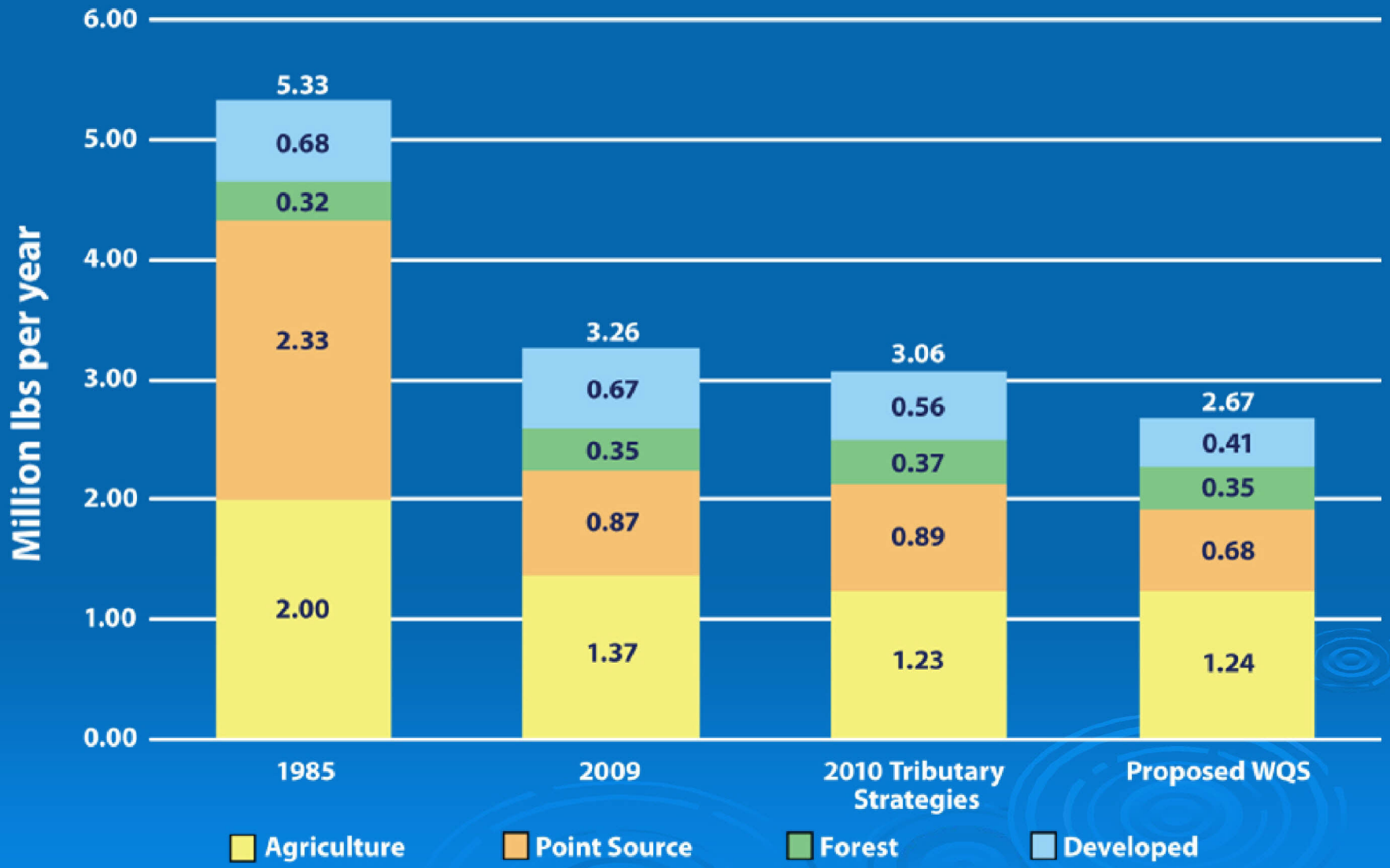


Model Simulated Sediment Loads by Scenario Compared with the Draft Sediment Allocations (billions of pounds per year as TSS)

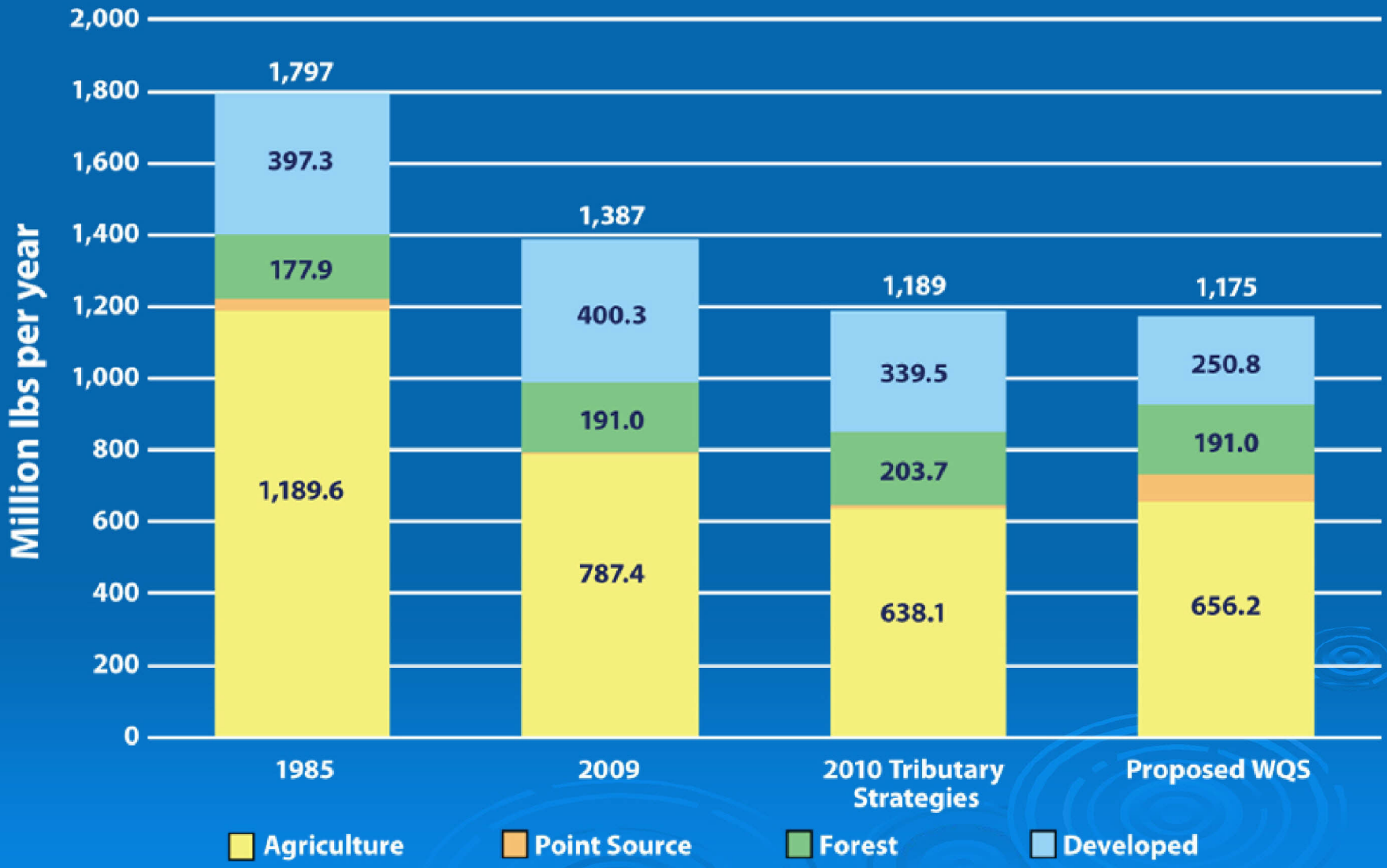



MD Nitrogen Loads by Sector and Scenario—CBP Watershed Model P5.3
Million lbs per year
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
74.27
8.29
6.47
32.10
27.40
48.73
9.66
7.13
14.15
17.79
39.37
6.77
7.38
11.44
13.77
38.40
7.15
7.13
10.55
13.57
1985
2009
2010 Tributary Strategies
Proposed WQS
Agriculture
Point Source
Forest
Developed

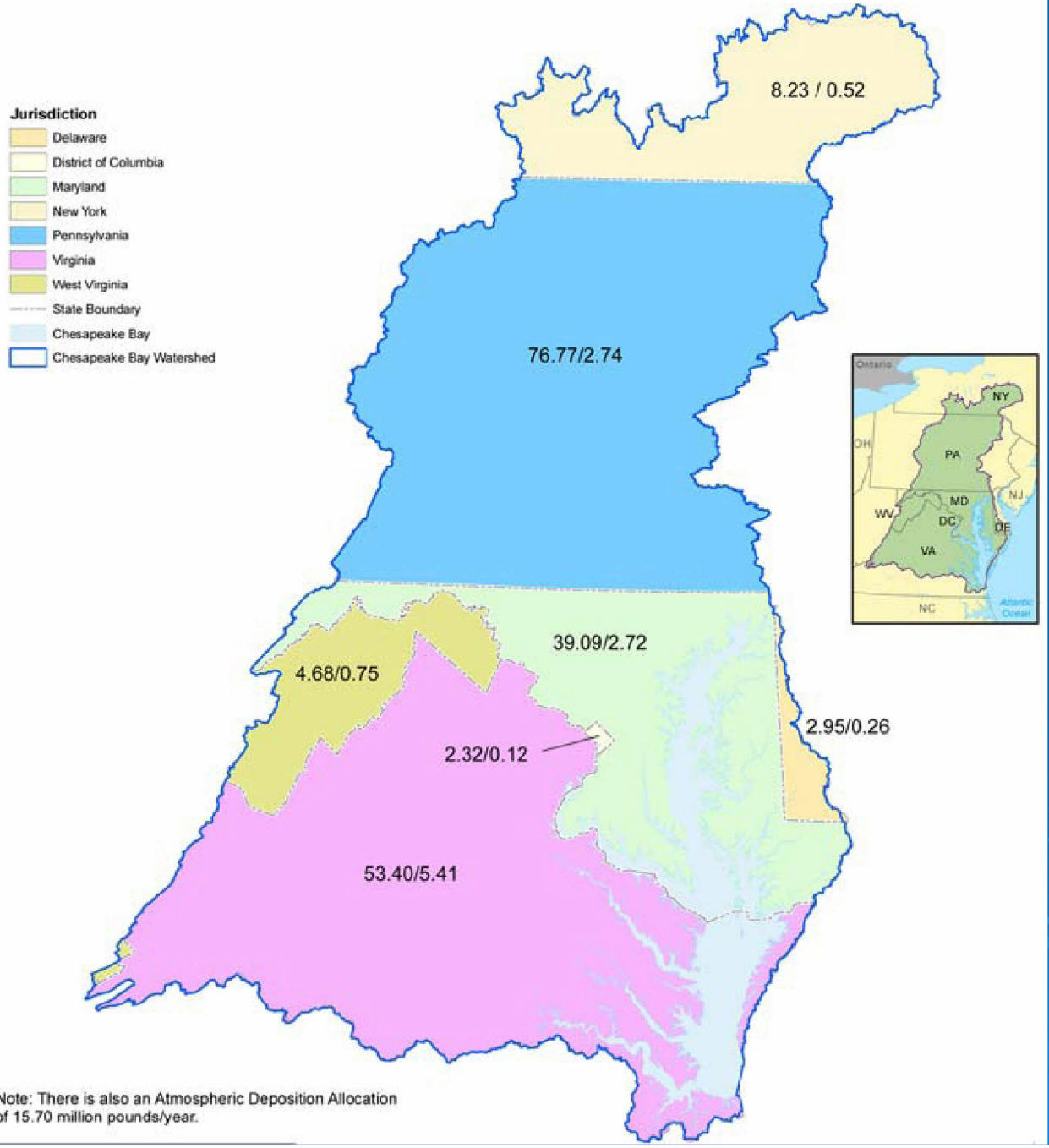
MD Phosphorus Loads by Sector and Scenario—CBP Watershed Model P5.3



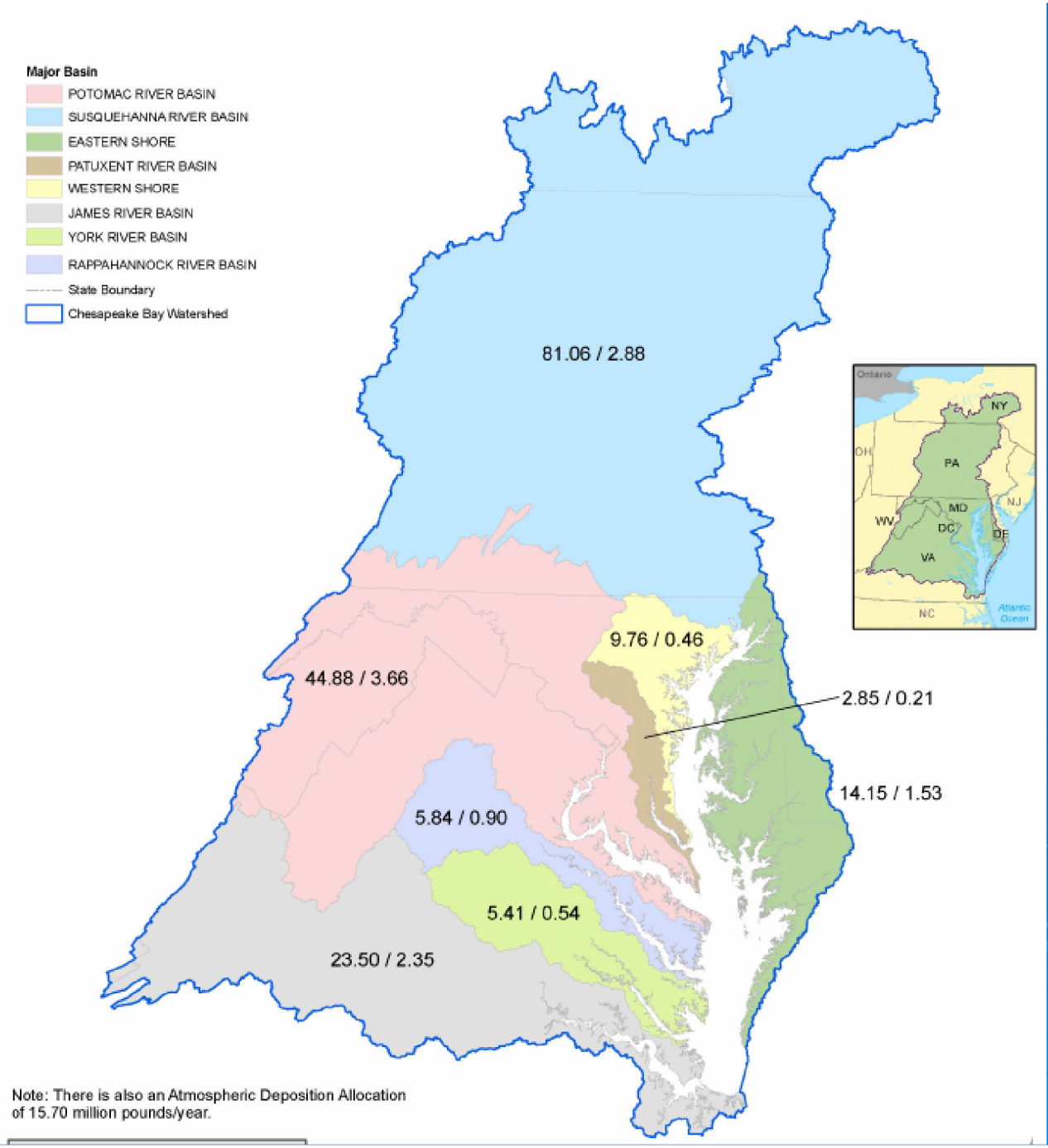
MD Sediment Loads by Sector and Scenario—CBP Watershed Model P5.3



Pollution Diet by State



Pollution Diet by River



TMDL Goals

2 year milestones

60 percent by 2017

100 percent by 2025

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Local in 2011

Meeting the Pollution Diet

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Overall Draft WIP Evaluation

- WIP is the how, when and where of attaining the TMDL diet
- 7 jurisdictions provided Draft WIPs in early September
- WIPs must:
  - achieve pollution targets
  - provide reasonable assurance

Do WIPs meet the allocations?

Jurisdiction	Nitrogen	Phosphorus	Sediment
DC	✓	✓	
DE			✓
MD	✓	✓	✓
NY			✓
PA	✓		
VA			✓
WV		✓	

Draft Maryland WIP Evaluation

- Met nitrogen (0 percent over)
- Met phosphorus (0 percent over)
- Met sediment (0 percent over)

But some river basins over for N, P, and/or S.

Overall Draft WIP Evaluation

None of the WIPs provided adequate assurance

- Inadequate strategy for filling program gaps
- Limited enforceability/accountability
- Few dates for key actions

Federal Backstops

- All jurisdictions require some level of backstop to:
  - Meet the pollution allocations
  - Provide a high level of assurance
- Backstop allocations focus on federal authority
  - Additional reductions from regulated point sources (wastewater treatment plants, CAFO, MS4s)
  - Finer scale allocations for headwater states

Federal Backstops

- **Backstop allocation adjustments**
  - Minor - adjust load allocations to equal targets
  - Moderate -
    - Stronger CAFO/MS4 requirements
    - Significant WWTPs: N @ 4 mg/l, P @ 0.3 mg/l
  - High Backstop –
    - Stronger CAFO/MS4 requirements
    - Significant WWTPs: N @ 3 mg/l, P @ 0.1 mg/l

Backstops by Jurisdiction

- Maryland, DC – Minor Backstop
- Virginia – Moderate Backstop
- Delaware, Pennsylvania, New York and West Virginia – High Backstop
- Headwater States (PA, NY, WV)
  - EPA assigning finer scale wasteload and load allocations

Draft MD WIP Evaluation

For Maryland: minor backstop

- Most substantial WIP; MD is committed to having practices in place by 2020 to meet the allocations and by 2017 to achieve 70% of reductions
- WIP should have more specific implementation plans and specific contingency plans
- Should include plans with schedules for addressing any known program funding and staffing gaps
- Information on compliance rates and enforcement in current programs for all sectors should be included

In Summary

- Hybrid TMDL is blend of jurisdiction WIPs and EPA backstop allocations
- Final WIPs need to address deficiencies
- EPA prefers to use jurisdiction WIPs and not backstop in final TMDL

Opportunities for Improvement

- Jurisdictions can enhance their WIP submissions by the November 29 deadline
  - EPA will engage jurisdictions in discussions
  - EPA will evaluate the final WIPs
  - Final TMDL will be informed by final WIPs

Next Steps

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Next Steps

- Hold 18 public meetings in six states, D.C.
- Public comment period until November 8
- States, D.C. submit final WIPs on November 29
- TMDL will be established by December 31

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Submit Your Comments

- Public comment period until November 8
  - Electronically, visit:
    www.regulations.gov
    Docket ID No. EPA-R03-OW-2010-0736
  - In writing, mail to:
    Water Docket, EPA, Mailcode: 2822T
    1200 Pennsylvania Ave., NW.,
    Washington, D.C., 20460.
  - By hand, drop off from 8:30 a.m. - 4:30 p.m.:
    EPA Docket Center Public Reading Room,
    EPA Headquarters West, Room 3340,
    1301 Constitution Ave., NW, Washington, D.C.

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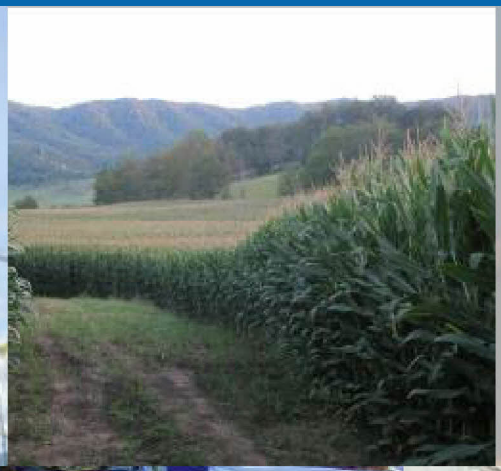







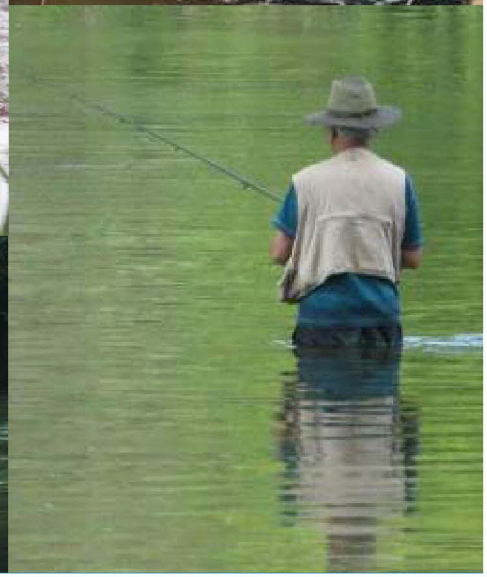

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